

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-30 (Canceled).

Claim 31 (New): A process, comprising:

contacting at least one of cork or a cork-based material with a dense fluid under pressure at a temperature of from 10 to 120°C and a pressure of from 10 to 600 bar;

wherein the dense fluid under pressure comprises at least one cosolvent in an amount of from 0.01 to 10% by weight based on the total weight of the dense fluid under pressure, and

wherein the dense fluid is in a supercritical state.

Claim 32 (New): The process according to Claim 31, further comprising:

adding the cosolvent to the dense fluid under pressure, before the contacting.

Claim 33 (New): The process according to Claim 31, wherein the contacting is carried out at a temperature of from 31.1 to 80°C and a pressure of 73 to 300 bar.

Claim 34 (New): The process according to Claim 31, wherein the dense fluid under pressure is at least one selected from the group consisting of carbon dioxide, sulfur hexafluoride, nitrous oxide, nitrogen monoxide, an alkane containing 1 to 5 atoms of carbon, an alkene, and an organic liquid.

Claim 35 (New): The process according to Claim 31, wherein the cosolvent is water and the dense fluid under pressure is supercritical carbon dioxide.

Claim 36 (New): The process according to Claim 35, wherein the dense fluid under pressure comprises the cosolvent in an amount of from 0.02 to 1% by weight.

Claim 37 (New): The process according to Claim 35, wherein the dense fluid under pressure comprises the cosolvent in an amount of from 0.02 to 0.2% by weight.

Claim 38 (New): The process according to Claim 31, wherein the contacting eliminates one or more undesirable organic compounds selected from the group consisting of a (poly)chlorophenol, a pentachlorophenol, a (poly)chloroanisole, a trichloroanisole and a tetrachloroanisole, without simultaneously eliminating any ceroids.

Claim 39 (New): The process as claimed in Claim 31, wherein the contacting eliminates one or more of trichloroanisole and tetrachloroanisole, without eliminating any ceroids.

Claim 40 (New): The process as claimed in Claim 31, wherein the cosolvent is at least one aqueous solution selected from the group consisting of a buffer solution of phosphate, a buffer solution of hydrogen phosphate, a solution of ascorbic acid and a mixture of water and an alcohol.

Claim 41 (New) The process according to Claim 31, wherein the contacting is carried out for from 30 to 60 minutes and at least 85% of one or more polychlorophenols present in the cork or the cork-based material is extracted.

Claim 42 (New): The process as claimed in Claim 31, wherein the contacting is carried out for from 30 to 60 minutes and at least 98% of one or more polychloroanisols present in the cork or the cork-based product is extracted.

Claim 43 (New): The process according to Claim 31, wherein from 10 to 100 kg of the dense fluid under pressure is contacted with 1 kg of the cork or the cork-based material.

Claim 44 (New): The process as claimed in Claim 31, wherein the cosolvent is present in an amount effective to reduce microbial growth on the cork or the cork-based product more than the reduction in the amount of microbial growth when the cork or the cork-based material is contacted with the dense fluid under pressure in the absence of the cosolvent.

Claim 45 (New): The process according to Claim 31, wherein the contacting includes alternately increasing and decreasing the pressure in a plurality of cycles with an amplitude of pressure variation of from 10 to 100 bar and a time interval of from 10 seconds to 10 minutes.

Claim 46 (New): The process according to Claim 31, wherein the cosolvent is at least one selected from the group consisting of water, an aqueous solution, an alcohol, a ketone and mixtures thereof.

Claim 47 (New): The process according to Claim 46, wherein the cosolvent further comprises at least one selected from the group consisting of a fungicide, an antibiotic and an antioxidant.

Claim 48 (New): The process as claimed in Claim 31, wherein the contacting is carried out to remove organic compounds having an undesirable taste, an undesirable smell, or both an undesirable taste and an undesirable smell.

Claim 49 (New): The process according to Claim 31, wherein the contacting removes one or more of a phenolic compound and an anisole compound.

Claim 50 (New): The process according to Claim 31, further comprising:
gasifying the densifying the dense fluid under pressure by changing at least one of the temperature and the pressure to separate one or more extracts, and
recycling the gasified dense fluid.

Claim 51 (New): The process according to Claim 31, further comprising:
chemically or mechanically treating the cork or the cork-based material before or after contacting the cork or the cork-based material with the dense fluid under pressure.

Claim 52 (New): The process according to Claim 31, further comprising:
shaping the cork or the cork-based material before or after the contacting.

Claim 53 (New): The process according to Claim 52, wherein the shaping includes shaping the cork or the cork-based material into the form of one or more of a bottle cork, a board and a sheet.

Claim 54 (New): A process for manufacturing bottle corks, comprising:
manufacturing a bottle cork from the cork or the cork-based material obtained by the process of Claim 31.

Claim 55 (New): The process according to Claim 31, wherein the dense fluid under pressure is supercritical CO₂, the cosolvent is water, the temperature is from 40 to 80 °C, and the pressure is from 100 to 300 bar.

Claim 56 (New): The process according to Claim 31, further comprising:
forming one or more extracts by contacting the cork of the cork-based material with the dense fluid under pressure,
separating the dense fluid under pressure from the extracts,
vaporizing at least a portion of the separated dense fluid under pressure to form a gaseous fluid, and
recycling the gaseous fluid.

Claim 57 (New): The process according to Claim 55, wherein the dense fluid under pressure comprises the cosolvent in an amount of from 0.0 to 0.2% by weight.

BASIS FOR THE AMENDMENT

Claims 31-57 are active in the present application. Claims 1-30 have been canceled. Claims 31-57 are new claims. Support for the new claims is found in the previously presented claims, page 14, line 22; and page 20, line 30. The specification has been amended for matters of form. No new matter is believed to have been added to this amendment.